

ITEM  
EQUIPMENT FAILURE MODE, EFFECT ANALYSISPage: 1  
Date: 02/16/90

01/02/90 SUPERSEDES / /

## ANALYSIS:

NAME P/N CAT	FUNCTION	FAILURE MODE & CAUSES	MISSION PHASE	FAILURE EFFECT	FAILURE DETECTION FLIGHT/GROUND	TIME TO EFFECT/ ACTIONS		CREW	REMARKS/ HAZARD	REF
						TIME	EFFECT			
COOLANT RELIEF VALVE, ITEM 172 50784985-1 (1)	Provides condensate relief during EVA in case of a failed closed coolant isolation valve (170). CAUSES: Diaphragm sticks to seat; plunger jams.	721H02: Valve to open.  CAUSES: Diaphragm sticks to seat; plunger jams.	PREEVA EVA	END ITEM: Blockage of water flow path through valve.  GFE INTERFACE: None for single failure if the 170 valve also fails closed, then excess condensate will carry over into the vent loop.	FLIGHT: None.  GROUND: Tst., FERU-B-001, Para. 7.3.3.2.1.1.	None, N/A	3/10 A-PASS	TIME N/A	None. The 171 valve and the SOP are the redundant paths. The Item 172 valve is standby redundant to the 171 failed closed mode.	

MISSION:  
None for single  
failure. If a  
second failure  
occurred (the 171  
valve failed  
closed), water  
carryover into the  
vent loop would  
cause termination  
of EVA.

CREW/VEHICLE:  
None for single or  
double failure.  
Possible loss of  
crew with loss of  
SOP.

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ATTACHMENT  
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